

CLAIMS

1. An exercise apparatus comprising:

a first treadle assembly providing a first moving surface, the first treadle assembly arranged to pivot;

5 a second treadle assembly providing a second moving surface, the second treadle assembly arranged to pivot;

an interconnection assembly operably coupled between the first treadle assembly and with the second treadle assembly; and

10 at least one resistance element operably coupled with the interconnection assembly.

2. The exercise apparatus of claim 1 wherein:

the first moving surface comprises a first roller and a second roller and an endless belt in rotatable engagement with the first and second roller; and

15 the second moving surface comprises a third roller and a fourth roller and a second endless belt in rotatable engagement with the third and fourth roller.

3. The exercise apparatus of claim 1 wherein the interconnection assembly comprises:

a rocker arm arranged to pivot about a first pivot point.

20 4. The exercise device of claim 3 wherein the rocker arm comprises a first portion and a second portion to either side of the first pivot point, the first portion coupled with the first treadle assembly and the second portion coupled with the second treadle assembly.

5. The exercise device of claim 4, wherein the interconnection assembly further comprises:

a first rod connected between the first portion of the rocker arm and the first treadle assembly; and

5 a second rod connected between the second portion of the rocker arm and the second treadle assembly.

6. The exercise device of claim 5 wherein the first rod comprises a turnbuckle and the second rod comprises a turnbuckle.

7. The exercise apparatus of claim 1 further comprising a frame structure,
10 and wherein the interconnection assembly comprises:

at least one pulley connected with the frame structure;

at least one cable operably supported between the at least one pulley, the first treadle assembly and the second assembly.

8. The exercise device of claim 7 wherein the at least one pulley comprises:

15 at least one first pulley connected with the frame structure above the first treadle assembly; and

at least one second pulley connected with the frame structure above the second treadle assembly.

9. The exercise device of claim 8 wherein:

20 the first treadle assembly includes a third pulley;

the second treadle assembly includes a fourth pulley; and

the at least one cable is operably supported by the third pulley and the fourth pulley.

10. The exercise apparatus of claim 1 wherein the at least one resistance element comprises a rotationally elastic member.

5 11. The exercise apparatus of claim 1 wherein the resistance element comprises a clutch.

12. The exercise apparatus of claim 11 wherein the interconnection assembly comprises a rocker arm adapted to pivot about a pivot axis, and wherein the clutch comprises a first clutch plate operably connected with the rocker arm and a second clutch
10 plate adapted to engage the first clutch plate to provide a resistance between the first and second clutch plates.

13. The exercise apparatus of claim 12 wherein the second clutch plate is adjustably arranged to provide an adjustable resistance between the first clutch plate and the second clutch plate.

15 14. The exercise apparatus of claim 13 wherein the second clutch plate is supported by a pivotable bracket, the pivotable bracket comprising a biasing member to adjust the second clutch.

15. The exercise apparatus of claim 14 further comprising a spring member arranged to urge the second clutch plate against the first clutch plate.

20 16. The exercise apparatus of claim 3 further comprising a frame and wherein the resistance element comprises:

at least one spring element operably coupled between the frame and the rocker arm.

17. The exercise apparatus of claim 16 wherein the at least one spring is coupled to the rocker arm distally from the first pivot point.

18. The exercise apparatus of claim 3 further comprising:

a frame;

5 the rocker arm comprises a pivot axle;

the resistance element comprises a pulley operably coupled with the pivot axle;

and

at least one spring operably coupled between the pulley and the frame.

19. The exercise apparatus of claim 3 further comprising:

10 the rocker arm comprises a pivot axle; and

a brake operably coupled with the pivot axle.

20. The exercise apparatus of claim 19 wherein the brake comprises a fluid filled vessel with an impeller blade.

21. An exercise apparatus comprising:

15 a first treadle assembly providing a first moving surface including a first roller and a second roller and an endless belt in rotatable engagement with the first and second roller, the first treadle assembly arranged to pivot;

a resistance device comprising a first disk and a first strap connected between the first treadle assembly, around the disk, and with the base frame.

20 22. An exercise apparatus comprising:

a frame;

a first treadle assembly providing a first moving surface, the first treadle assembly arranged to pivot;

a second treadle assembly providing a second moving surface, the second treadle assembly arranged to pivot;

5 an interconnection assembly operably coupled between the first treadle assembly and with the second treadle assembly; and

 a resistance element coupled with the first treadle and the second treadle, the resistance element comprising a pivotally supported bracket having a first section and a second section to either side of a pivot axle, a first cable coupled between the first treadle
10 assembly and the first side, a first shock coupled between the first section and the frame, a second cable coupled between the second cable coupled between the second treadle and the second side, and a second shock coupled between the second section and the frame.

23. An exercise apparatus comprising:

a base frame;

15 a first treadle assembly including a first roller and a second roller and an endless belt in rotatable engagement with the first and second roller, the first treadle assembly pivotally connected with the base frame;

 a second treadle assembly including a third roller and a fourth roller and a second
20 endless belt in rotatable engagement with the third and fourth roller, the second treadle assembly pivotally connected with the base frame; and

 means for locking out the treadle assemblies connected with the first treadle assembly and the second treadle assembly, the lock out mechanism movable between a position where the first and second treadle assembly may pivot upward and downward

and a position where the first and second treadle assembly may not pivot upward and downward.

24. An exercise apparatus for a user with a first foot and a second foot, the exercise device comprising:

5 a frame structure;

a first treadle assembly pivotally connected with the frame structure, the first treadle assembly including an endless belt;

a second treadle assembly pivotally connected with the frame structure, the second treadle assembly including a second endless belt;

10 an interconnection member operably connected with the first treadle assembly and with the second treadle assembly;

at least one resistance element operably associated with the interconnection assembly; and

15 whereby, during use of the exercise device, a first foot moves rearwardly and downwardly and a second foot moves rearwardly and upwardly.

25. An exercise apparatus comprising:

a frame structure;

20 a first treadle assembly providing a first moving surface and an endless belt in rotatable engagement with the first and second roller, the first treadle assembly pivotally connected with a the frame structure;

a second treadle assembly providing a second moving surface, including a third roller and a fourth roller and a second endless belt in rotatable engagement with the third

and fourth roller, the second treadle assembly pivotally connected with the frame structure;

a first springless shock connected between the first treadle assembly and the frame structure; and

5 a second springless shock connected between the second treadle assembly and the frame structure.

26. The exercise apparatus of claim 25 wherein:

the first moving surface comprises an endless belt in rotatable engagement with the first and second roller; and

10 the second moving surface comprises a second endless belt in rotatable engagement with the third and fourth roller.

27. An exercise apparatus comprising:

a frame structure;

15 a first treadle assembly including a first roller and a second roller and an endless belt in rotatable engagement with the first and second roller, the first treadle assembly pivotally connected with the frame structure;

a second treadle assembly including a third roller and a fourth roller and a second endless belt in rotatable engagement with the third and fourth roller, the second treadle assembly pivotally connected with the frame structure; and

20 an interconnection member operably associated with the first treadle assembly and the second assembly;

whereby the interconnection member may be configured in a shipping configuration where the first treadle assembly and second treadle assembly are lowered with respect to the base frame.

28. The exercise apparatus of claim 27 wherein the interconnection member
5 comprises a rocker arm assembly.

29. The exercise apparatus of claim 27 wherein the rocker arm assembly includes a spring loaded axle pivotally supported in a bracket defining an elongate slot.

30. An exercise apparatus comprising:

a first treadle assembly adapted to pivot about an arc;

10 a second treadle assembly adapted to pivot about the axis; and

a plate coupled with at least one of the treadles, the plate arranged to maintain a parallel alignment between the treadle assemblies.

31. The exercise apparatus of claim 30, the skid plate comprising a member having a front side defined by a first side and a second side separated by a third side and
15 a fourth side, and further defined by a thickness separating said front side from a rear side.

32. The skid plate of claim 31, wherein said skid plate is connected with an upper portion of a bracket on the first treadle assembly.

33. The skid plate of claim 32, further comprising a first screw hole and a
20 second screw hole located in said member.

34. The skid plate of claim 32, further comprising a stub extending from said rear side of said member configured to engage a corresponding stub hole located in the bracket.

Express Mail No. EV304883463US
Attorney Docket No. 2071/US/2

35. The skid plate of claim 31, wherein said member is made of plastic.